REMARKS

The Examiner rejected Claim 12 under 35 U.S.C. 112, second paragraph, as being indefinite for several reasons. Claim 1 has been amended slightly and reorganized to address each of the issues noted by the Examiner.

The Examiner also rejected Claim 12 under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of the Tanaka, Katoh et al., and Banzhaf et al. references. This rejection is respectfully traversed.

Independent Claim 12 defines the invention as a drive for cooling fans in motor vehicles. The drive includes a primary cooling circuit (3) including a primary cooler (4), a primary temperature sensor (23), at least two secondary cooling circuits (5, 6), a fluid friction clutch including driving and driven clutch members (9, 10) and a reservoir (17) for a viscous fluid. The reservoir (17) is limited by a separating member (18) and is connectable to a working chamber (19) by at least one first opening (20) in the separating member (18). The working chamber (19) extends into a region between the clutch members (9, 10) in which torque is transmitted from the driving clutch member (9) to the driven clutch member (10) by the viscous fluid. The filling of the working chamber (19) with the viscous fluid is controlled by a first control element (21) opening and closing the first opening (20) in the separating member (18) depending on the temperature of the cooling air passing through the primary cooler (4) sensed by the primary temperature sensor (23). Each of the at least two secondary cooling circuits (5, 6) includes a secondary temperature sensor (40, 41). The secondary temperature sensors (40, 41) are operatively connected to a control unit (39) arranged to control a second control element (31). The separating member (18) comprises at least one second opening (30), and the second control element (31) is arranged in the working chamber (19). The control unit (39) moves the second control element (31) to open and close the at least one second opening (30) in accordance with the temperature sensed by one or more of the secondary temperature sensors (40, 41) to control the filling of the working chamber (19) with the viscous fluid. Control of the second control element (31) is independent of control of the first control element (21).

The references do not show or suggest the use of at least two secondary cooling 'circuits (5, 6) as specifically claimed, wherein the at least two secondary cooling circuits (5, 6) include secondary temperature sensors (40, 41) that are operatively connected to a control unit (39) arranged to control a second control element (31) in accordance with the temperature sensed by one or more of the secondary temperature sensors (40, 41) to control the filling of the working chamber (19) with the viscous fluid, and wherein control of the second control element (31) is independent of control of the first control element (21).

The Tanaka reference is clearly deficient because it does not show or suggest the basic structure of the invention, i.e., a drive for cooling fans in motor vehicles that includes both a primary cooling circuit (3) and, in addition thereto, at least two secondary cooling circuits (5, 6), as specifically claimed. Thus, the Tanaka reference cannot show or suggest the additionally claimed features of the two secondary cooling circuits in such a cooling fan drive system.

The Katoh et al. reference discloses a fan drive system including first and second control members. However, the Katoh et al. reference does not show or suggest the basic structure of the invention, i.e., a drive for cooling fans in motor vehicles that includes both a primary cooling circuit (3) and, in addition thereto, at least two secondary cooling circuits (5, 6), as specifically claimed.

The Banzhaf et al. reference disclose the basic structure of the invention, i.e., a drive for cooling fans in motor vehicles that includes both a primary cooling circuit (3) and, in addition thereto, at least two secondary cooling circuits (5, 6). However, the Banzhaf et al. reference does not show or suggest the other specifically claimed features of the invention as set forth above. Furthermore, a person of ordinary skill in the art would not find it obvious to combine the references in the piecemeal manner suggested by the Examiner. Thus, the claimed invention is clearly patentable over the art of record.